IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Claims 7-12 as originally presented were apparently renumbered by the Examiner as claims 8-13. In accordance with the renumbered claims, please CANCEL claims 8 and 9 without prejudice or disclaimer and ADD new claims 14-31 as follows:

1-9 (**cancelled**)

10. (**previously presented**) A failsafe data output device, comprising:

at least one output channel for connecting peripheral actuators; and

a processing unit to process a user-designated logic operation, the processing unit evaluating useful information of a received telegram, subjecting the useful information to the user-designated logic operation and driving the at least one output channel in accordance with a result of the logic operation.

11. (**previously presented**) The failsafe data output device according to claim10, wherein the processing unit monitors a time sequence of process data transmitted with the useful information and drives the at least one output channel only when the time sequence of data for driving the at least one output channel lies within predetermined tolerances.

12. (**previously presented**) The failsafe data output device according to claim 10, further comprising:

a monitoring circuit constructed as a watchdog, the monitoring circuit to monitor the processing unit and shifting the at least one output channel into a safe state as soon as a malfunction of the processing unit is detected.

13. (**previously presented**) The failsafe data output device according to claim 12, wherein the at least one output channel includes a readback output channel, wherein a signal supplied to the readback output channel is also supplied to the monitoring circuit, the monitoring circuit comparing the supplied signal and a signal read back from the readback channel and, in

B1 cont'd response to deviations, shifts an affected output channel or all of the at least one output channels into a safe state.

Sub C1 14. (**new**) A method of operating an automation system having at least one input unit for receiving process signals and at least one output unit for driving external peripherals which are communicatively interconnected via a bus, wherein at least one of the at least one input units is constructed as a failsafe input unit and at least one of the at least one output units is constructed as a failsafe output unit, the method comprising:

B2 transmitting a telegram from the at least one failsafe input unit to the at least one failsafe output unit at predetermined times, the telegram including at least one useful information item, one destination code point designating an address for one of the at least one failsafe output units and one origin code designating the failsafe input unit transmitting the telegram;

interpreting receipt of the telegram at the predetermined times as an indication of an intact communications relationship; and

shifting the connected peripherals into a safe state if the telegram is not received at the predetermined times.

15. (**new**) The method as recited in claim 14, further comprising:

triggering a test procedure at predetermined times;

effecting a status change for at least one input channel of at least one of the at least one failsafe input units;

monitoring the status change;

outputting an error message, if necessary; and

canceling the effected status change at an end of the test procedure, the test procedure being completely transparent for reading out the at least one input channel.

16. (**new**) The method as recited in claim 15, further comprising:

operating the at least one input channel as an antivalent channel.

17. (**new**) The method as recited in claim 15, further comprising:

evaluating the at least one useful information item of the telegram;

subjecting the at least one useful information item to a user designated logic operation; and

driving the at least one output channel in accordance with a result of the designated logic operation.

18. (**new**) The method as recited in claim 17, further comprising:

monitoring a time sequence of the process data which is transmitted with the useful information; and

driving the at least one output channel only when the time sequence of the data required for driving the at least one output channel lies within predetermined tolerances.

B2 cont'd

19. (**new**) The method as recited in claim 16, further comprising:

providing a monitoring circuit which operates as a watchdog; and

shifting the at least one output channel into a safe state as soon as the monitoring circuit detects a malfunction of the automation system.

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20. (**new**) The method as recited in claim 17, further comprising:

providing a monitoring circuit which operates as a watchdog; and

shifting the at least one output channel into a safe state as soon as the monitoring circuit detects a malfunction of the automation system.

21. (**new**) The method as recited in claim 19, further comprising:

reading back a signal supplied to the output channel;

comparing the signal supplied to the output channel and the signal read back from the output channel; and

shifting at least one of output channel to a safe state in response to a deviation detected by the comparison.

22. (**new**) The method as recited in claim 20, further comprising:

reading back a signal supplied to the output channel;

comparing the signal supplied to the output channel with the signal read back from the output channel; and

shifting at least one output channel to a safe state in response to a deviation detected by the comparison.

23. (**new**) An automation system, comprising:

at least one input unit which receives process signals; and

at least one output unit for driving external peripherals, the at least one input unit and the at least one output unit being communicatively interconnected via a bus, wherein at least one of the at least one input units is constructed as a failsafe input unit and at least one of the at least one output units is constructed as a failsafe output unit, wherein:

the at least one failsafe input unit transmits a telegram to the at least one failsafe output unit at predetermined times, the telegram including at least one useful information item, one destination code point designating an address for one of the at least one failsafe output units and one origin code designating the failsafe input unit transmitting the telegram; and

the at least one failsafe output unit interprets receipt of the telegram at the predetermined times as an indication of an intact communications relationship, otherwise the automation system shifts the connected peripherals into a safe state.

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24. (**new**) The automation system as recited in claim 23, further comprising:

a test circuit which triggers a test procedure at predetermined times and effects a status change for at least one input channel of at least one of the at least one failsafe input units; and

an internal logic circuit which monitors the status change and outputs an error message, if necessary and cancels the effected status change at an end of the test procedure, wherein the test procedure is completely transparent for reading out the at least one input channel.

25. (**new**) The automation system as recited in claim 23, wherein the at least one failsafe input device comprises at least one input channel which operates as an antivalent channel.

26. (**new**) The automation system as recited in claim 23, further comprising:

a processing unit which:

evaluates the at least one useful information item of the telegram;

subjects the at least one useful information item to a user designated logic operation; and

drives the at least one output channel in accordance with a result of the designated logic operation.

27. (**new**) The automation system as recited in claim 23, wherein the processing unit:

monitors a time sequence of process data transmitted with the useful information; and

drives the at least one output channel only when the time sequence of the data required for driving the at least one output channel lies within predetermined tolerances.

B.2 cont.

28. (**new**) The automation system as recited in claim 26, further comprising:

a watchdog which monitors the processing unit and shifts the at least one output channel into a safe state as soon as the watchdog detects a malfunction of the automation system.

29. (**new**) The automation system as recited in claim 27, further comprising:

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a watchdog which monitors the processing unit and shifts the at least one output channel into a safe state as soon as the watchdog detects a malfunction of the automation system.

30. (**new**) The automation system as recited in claim 28, wherein:

the output channel is constructed as a readback output channel;

a signal supplied to the output channel is also supplied to the watchdog; and

the watchdog compares the signal supplied to the output channel and a signal read back from the output channel shifts at least one output channel to a safe state in response to a deviation detected by the comparison.

31. (**new**) The automation system as recited in claim 29, wherein:

the output channel is constructed as a readback output channel;

a signal supplied to the output channel is also supplied to the watchdog; and

the watchdog compares the signal supplied to the output channel and a signal read back from the output channel shifts at least one output channel to a safe state in response to a deviation detected by the comparison.